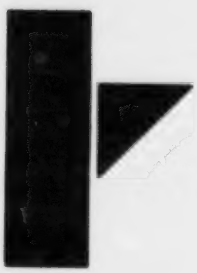


ANNUAL REPORT 1987

89-01653/

June 1, 1988

The Honourable George Johnson
Lieutenant Governor of the Province of
Manitoba

Sir:

I have the honour of respectfully submitting to you the Annual Report of Manitoba Data Services for the fiscal period ended December 31, 1987.

Clayton Manness
Minister Responsible for
Manitoba Data Services

May 11, 1988

The Honourable Clayton Manness
Minister Responsible for
Manitoba Data Services
Legislative Building
Winnipeg, Manitoba

Dear Sir:

In accordance with the Manitoba Data Services Act, I am pleased to present the Annual Report for Manitoba Data Services for the fiscal period ended December 31, 1987.

Yours truly

R. M. SILVER
Chairperson
Manitoba Data Services

Manitoba Data Services 13th Annual Report

For the fiscal period ended December 31, 1987

BUSINESS PURPOSE

The Manitoba Data Services Act states that:

"The aim and object of the Commission is to provide and maintain computer and data processing services available to the government, government agencies and government supported institutions and, subject to this Act, other persons".

This aim and object has been further developed by the Executive and Board into a number of mission statements that collectively define the business purpose of Manitoba Data Services.

— To provide computer related products and services to the Manitoba public sector

— To be financially self-sufficient

— To establish technical expertise and competence which will provide leadership and direction to the Manitoba Government in computer technology and will develop a reputation comparable to successful similar enterprises in Canada

— To offer computer related products and services which facilitate the achievement of productivity gains by its clients

— To make available efficient and effective computer services throughout Manitoba as is economically feasible

— To operate a business that provides a source of high technology employment in Manitoba

— To make available computer related services which might otherwise be provided from outside of Manitoba

HIGHLIGHTS

Operational

— $3 million refund to clients

— Five per cent rate reduction implemented

— Health care automation initiatives: online connection to national Organ Transplant Waiting List system, and installation of Unisys A12 computer

— Online transactions grew by 2 million to 10 million per month

— Online terminals number 3940 with 371 located outside Winnipeg

— Computing capacity and data storage capacity increased

— DB2 selected as prime database management system offering

— Network access improved with Network Services product

Financial

— Total Revenues	$20 271 000
— Total Expenditures	$16 106 000
— Net Income	$ 4 165 000
— Retained Earnings	$ 6 703 000

OUTLOOK

— Increased health care support in Winnipeg and Brandon

— Installation of a second Unisys A12 computer

— Conversion of all client processing to IBM 3480 tape subsystem

Report of the President and General Manager

In 1987, Manitoba Data Services (MDS) changed its year-end to December 31 from March 31 in keeping with the government's objective to provide members of the Manitoba legislature with more current operating information. As a result, this annual report covers the nine-month period from April 1, 1987 to December 31, 1987. It is significant that this change be considered in comparing information contained in this annual report to the results reported in previous annual reports of the commission.

MDS continued to realize a considerable increase in the business volumes processed in 1987. Compared with the same nine-month period of 1986, and adjusting for changes to the Schedule of Rates, business volumes grew by 15.4 per cent. This growth, combined with ongoing improvements to operating efficiencies, resulted in the realization of a net income of $4.1 million on total revenues of $20.2 million.

This higher-than-forecast income, coupled with the profits recorded in recent years, gave MDS the opportunity to provide its clients with a $3 million refund. Each client received a proportionate share of the total refund based on its ratio of contribution to the total income realized by MDS over the past two years.

MDS clients have further benefited from our strong financial position with the announcement of a five per cent rate reduction effective January 1, 1988. Through this latest rate change, a five per cent reduction in April, 1987, and previous rate reductions, clients have realized a 52 per cent improvement in the cost of processing their business applications since 1981.

With the advent of the provincial government's Health Care Automation Initiative, Manitoba Data Services became a multi-vendor service bureau in 1987. In March, the commission installed a Unisys Model A12 computer, the first non-IBM computer system operating at MDS. The initial purpose of this equipment is to provide support to the Unisys Health Care Services Centre recently established in Winnipeg. The long-term objective is to offer centralized patient management services to the Manitoba health care industry.

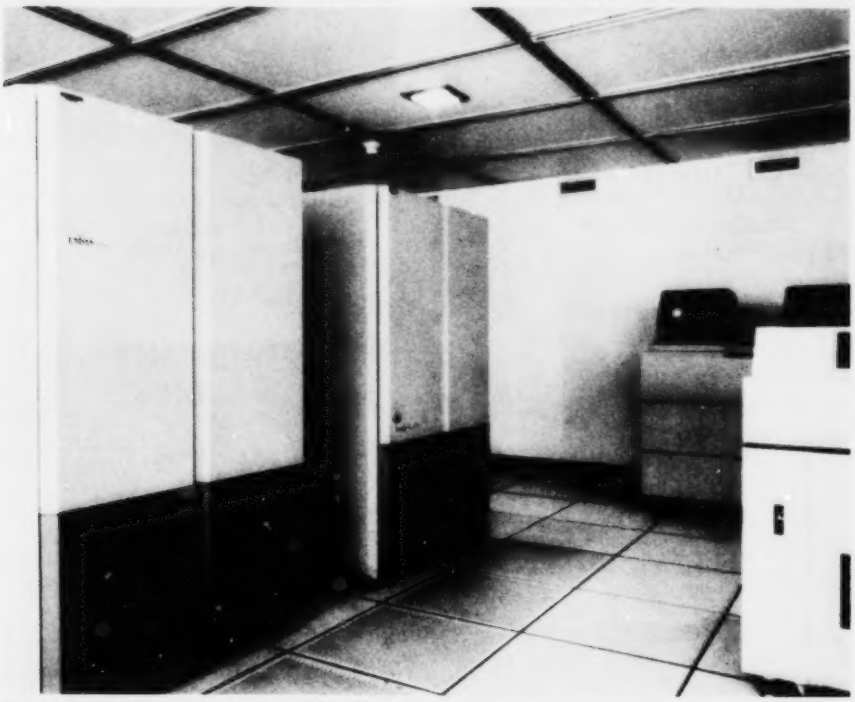
C. J. CHALMERS

A major step toward reaching this objective was realized with the Brandon General Hospital's agreement to implement a patient administration system based on the Unisys hospital administration product, Health Care Management System (HCMS). This application will be serviced from our Winnipeg operation and is scheduled to be in production by mid-1988.

At year-end, an agreement was being concluded with St. Boniface General Hospital in Winnipeg in which MDS would provide computer facilities management services to the hospital based on the more comprehensive Unisys hospital information system known as BHIS. This service will be supported through the installation of a second A12 computer at the Norquay site. Installation of this equipment is planned for early 1988 with service to the hospital commencing in April.

MDS was involved in a further development in the health care service sector in 1987 with the implementation of a national organ transplant waiting list system. Through this system, major hospitals across the country have instant access to an online registry of Canadian patients who are awaiting an organ transplant. Although relatively modest from an overall business perspective, this application is significant to Manitoba Data Services in that it represents the commission's first nationwide system. Perhaps more important, however, is that MDS is providing support to a critical aspect of modern health care in which timely access to information is essential.

Growth in client demand required an increase in the installed computing capacity of the IBM component of MDS' service offering. In June 1987, one of our two IBM Model 200 computers was upgraded to the Model 400 level. This effectively increased the available computing capacity to 84 million instructions per second (mips). To support this growth in demand, an additional 70 billion characters of disk storage were installed in 1987.



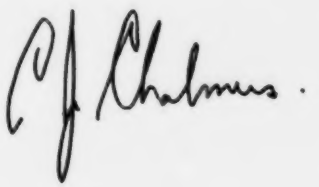
Unisys Model A12 computers support Manitoba's Health Care Automation Initiative

Online service remains the most important component of Manitoba Data Services business growth. Individual service accesses processed through the various client applications and time sharing systems has grown to in excess of 10 million transactions per month. This volume of business is supported from an expanding network of terminals situated throughout Manitoba. At the end of 1987, the number of terminals on this network had grown to 3,940, of which 371 are located in centres outside of Winnipeg.

Following a successful trial involving a number of clients, MDS selected DB2 as its relational database offering. In the latter half of 1987, DB2 was announced as a fully supported service. It is anticipated that DB2 will become the commission's primary online system support product.

During 1987 Bruce Peresky resigned from the MDS Board of Commissioners to pursue a new business opportunity. During his tenure, Mr. Peresky demonstrated a strong commitment to the success of Manitoba Data Services. Mr. Peresky and Donna Mark became the first staff representatives on the Board in 1984. As in previous years, the Board of Commissioners has been instrumental in providing MDS with a strong level of support and guidance. This has been a key contributor to the success the commission achieved in 1987.

The skill and dedication of its employees are key ingredients to the long-term success of any enterprise. On this basis, Manitoba Data Services future success would seem to be assured. Staff throughout MDS continue to demonstrate that they are among the most talented and highly motivated in the industry.



C. J. Chalmers

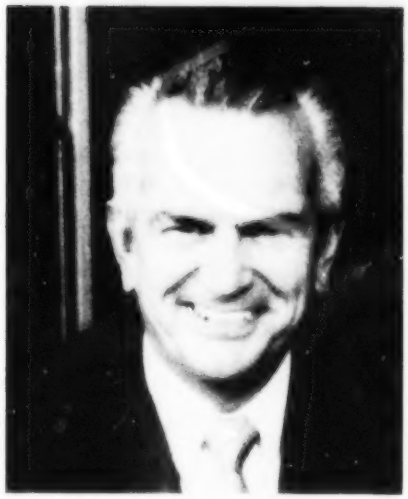
Board of Commissioners

• Member of the Audit Committee

* Member of the Hardware Acquisition Sub-Committee

Chairperson
ROBERT M. SILVER
President and General Manager
Manitoba Public Insurance Corporation

Vice Chairperson
MICHAEL S. DOYLE*
Professor of Computer Science
University of Manitoba



R. MURRAY FRASER•
Senior Vice-President
Energy Supply
Manitoba Hydro

DONNA L. MARK•
Problem Coordinator
Manitoba Data Services

DAVE M. OLINYK*
Director, Earth Sciences
Trident International, Inc.

DENNIS H. WARDROP
Executive Vice President
Manitoba Telephone System

Corporate Profile

Manitoba Data Services (MDS) is a commission of the Province of Manitoba, operating as a service bureau providing computer services and products to government departments, agencies, crown corporations and other government supported institutions.

MDS reports to the Province of Manitoba through a Board of Commissioners and the cabinet minister responsible for the commission.

The President and General Manager and three Vice-Presidents form the executive of MDS, reporting to the Board of Commissioners.

The Operations Support Services Division is responsible for the installation, maintenance and management of installed hardware and system software. Client Support Services Division provides consulting services and assistance to clients in planning their data processing needs plus problem resolution management when difficulties are encountered. Corporate Services Division provides the administrative, accounting and human resources support necessary to a large corporation.

MDS has provided data processing services to the Province of Manitoba since 1959, initially as a Branch of the Department of Finance. In 1975, MDS was formed as a subsidiary of the Manitoba Telephone System, and in 1979, by an act of the Legislature of the Province of Manitoba, MDS was established as an independent commission.

As a supplier of data processing to the Province of Manitoba, MDS serves all government departments, Crown corporations and agencies, including the Manitoba Telephone System, Manitoba Hydro, the Manitoba Health Services Commission, the Manitoba Public Insurance Corporation, and the Workers Compensation Board. In addition, MDS also provides access to driver and vehicle information to the City of Winnipeg Police Department, the Brandon City Police Department and RCMP detachments in Manitoba.

Since inception, MDS has continued to expand its service capability consistent with new developments in the data processing industry and relative to its clients' needs.

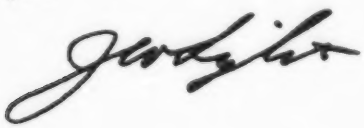
MDS is currently operating under Multiple Virtual Storage — XA (MVS/XA) with Job Entry Subsystem type 3 (JES3) on two IBM central processing units — a 3090-200 and a 3090-400.

Manitoba Data Services Executive Officers. From left: N. H. Shakespeare, Vice-President, Operations Support Services; J. Jones, Vice-President, Client Support Services; C. J. Chalmers, President and General Manager, and J. G. Campbell, Vice-President, Corporate Services.

Auditor's Report

We have examined the statement of financial position of Manitoba Data Services as at December 31, 1987 and the statements of operations and retained earnings, and changes in cash resources for the period then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these financial statements present fairly the financial position of Manitoba Data Services as at December 31, 1987 and the results of its operations and the changes in its cash resources for the period then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.



J. W. Singleton, CA,
Assistant Provincial Auditor

April 8, 1988,
Winnipeg, Manitoba.

Manitoba Data Services

Management Report

Management is responsible to the Board of Commissioners for the financial statements of the Commission which have been prepared in accordance with generally accepted accounting principles. Financial information presented elsewhere in this Annual Report is consistent with that contained in the financial statements.

The Commission maintains a system of internal control which provides management with reasonable assurance that client data and other assets are safeguarded and that reliable operating and financial records are maintained. This system includes written policies and procedures combined with an organizational structure which provides for appropriate delegation of authority and segregation of responsibilities. The Commission has also instituted policies and guidelines which require employees to maintain the highest of ethical standards.

The Provincial Auditor, whose report based upon an examination of the financial statements is enclosed, also reviews the Commission's system of internal control in accordance with generally accepted auditing standards for the purpose of expressing an opinion on the financial statements.

The Board of Commissioners has reviewed and approved these financial statements. To assist the Board in meeting its responsibility, it has appointed an Audit Committee which meets with management and with the Provincial Auditor jointly and separately, to review audit, financial reporting and related matters.

C. J. Chalmers
President and General Manager

W. G. Eamer, C.A.
Treasurer

Statement of Operations and Retained Earnings

In thousands of dollars, period ended (Note 13)	(9 months) December 31 1987	March 31 1987
REVENUES		
Data processing	$18 609	$23 936
Health-care program costs recoverable (Note 10)	986	—
Interest income	535	591
Miscellaneous (Note 3)	141	287
	20 271	24 814
EXPENSES		
Salaries and administration	8 136	9 680
Computer equipment and software — rental and maintenance	5 565	5 562
Depreciation and amortization	2 610	3 783
Pension and vested sick leave (Note 4)	537	853
Interest		
— Government of the Province of Manitoba (Note 5)	298	375
— Capital equipment leases	392	721
Gain on disposal of computer equipment (Note 8(c))	(1 432)	(14)
	16 106	20 960
NET EARNINGS	4 165	3 854
Client refund (Note 11)	3 000	—
Transferred to Retained Earnings	1 165	3 854
RETAINED EARNINGS — BEGINNING OF YEAR	5 538	1 684
RETAINED EARNINGS — END OF YEAR	$ 6 703	$ 5 538

The accompanying notes are an integral part of these statements

Manitoba Data Services

Statement of Financial Position

ASSETS In thousands of dollars, as at	December 31 1987	March 31 1987
CURRENT ASSETS		
Cash	$ 852	$ 340
Accounts receivable	3 143	4 245
Short-term deposits with the Minister of Finance, Government of the Province of Manitoba, at cost		
— Designated to fund client refund (Note 11)	3 000	—
— Undesignated	19	2 546
Prepaid expenses	90	91
	7 104	7 222
FIXED ASSETS (Note 6)	9 535	13 104
OTHER ASSETS		
Proprietary software (Note 7)	1 925	1 498
Long-term accounts receivable (Note 9)	626	33
Term deposits with the Minister of Finance, Government of the Province of Manitoba, at cost, designated to fund pension liability (Note 4(a))	4 881	4 454
	7 432	5 985
	$24 071	$26,311

LIABILITIES AND RETAINED EARNINGS

CURRENT LIABILITIES		
Accounts payable	$ 1 900	$ 705
Principal due within one year on advance from the Government of the Province of Manitoba	338	29
Principal due within one year on capital equipment leases	386	1 691
Client refund (Note 11)	3 000	—
	5 624	2 425
LONG-TERM LIABILITIES		
Pension and vested sick leave (Note 4)	5 446	4 940
Advance from the Government of the Province of Manitoba (Note 5) — General	—	1 633
— Health-care program equipment	5 243	—
Capital equipment leases (Note 8)	1 055	6 687
Health-care program equipment	—	5 088
	11 744	18 348
RETAINED EARNINGS	6 703	5 538
	$24 071	$26 311

The accompanying notes are an integral part of these statements

Statement of Changes in Cash Resources

In thousands of dollars, period ended (Note 13)	(9 months) December 31 1987	March 31 1987
OPERATIONS		
Receipts		
Data processing and miscellaneous	$20 335	$24 550
Interest income	445	581
Disbursements		
Salaries and administration, computer equipment and software	(12 410)	(15 457)
Interest	(677)	(1 083)
Cash provided by operations	7 693	8 591
FINANCING		
Capital leases — Acquisition	—	1 328
— Repayment	(876)	(1 226)
Government of the Province of Manitoba		
— Health-care program equipment		
— Advance	5 660	—
— Repayment	(79)	—
— General		
— Repayment	(1 662)	(3 432)
Health-care program equipment	(5 088)	5 088
Payments charged to pension and vested sick leave liability	(31)	(49)
	(2 076)	1 709
Cash available for investment	5 617	10 300
INVESTMENT		
Fixed assets	3 639	6 229
Proceeds from disposal of equipment	(202)	(22)
Proprietary software	768	1 117
Term deposits designated to fund pension liability	427	719
	4 632	8 043
INCREASE IN CASH AND SHORT-TERM DEPOSITS	985	2 257
CASH AND SHORT-TERM DEPOSITS — BEGINNING OF YEAR	2 886	629
CASH AND SHORT-TERM DEPOSITS — END OF YEAR	$ 3 871	$ 2 886

The accompanying notes are an integral part of these statements
Approved on behalf of the Board
April 18, 1988

R. M. Silver
Chairperson

R. M. Fraser
Chairman, Audit Committee

Notes to the Financial Statements — December 31, 1987

(Tabulated amounts in thousands of dollars)

1. ORGANIZATION

The Commission was established by the Manitoba Data Services Act on June 15, 1979, without share capital, to provide electronic data processing services to the Government of the Province of Manitoba and government agencies.

2. SIGNIFICANT ACCOUNTING POLICIES

(a) Basis of Reporting

The financial statements have been prepared in accordance with generally accepted accounting principles.

(b) Revenue Recognition

Revenue is recorded as services are provided.

(c) Fixed Assets

Fixed assets are initially recorded at cost and include certain leases, which in substance are purchases, capitalized at the lesser of fair value and the present value of the net minimum lease payments.

Depreciation and amortization of owned and leased assets are provided on a straight-line basis to amortize the cost over their estimated useful lives.

	YEARS
Computer equipment	3 to 4
Furniture and fixtures	5 to 10
Leasehold improvements and proprietary software	3 to 5

(d) Pension Plan and Vested Sick Leave

Pension and vested sick leave costs (Note 4) are accrued and charged to operations in the year to which they relate. Payments upon employee retirement or termination are charged to the pension and vested sick leave liability. Actuarial gains and losses on the pension liability, as determined by a triennial actuarial review, are amortized and charged to operations over a three-year period.

3. MISCELLANEOUS REVENUE

	(9 months) December 31 1987	March 31 1987
Equipment rentals	$ 32	$105
Program maintenance	29	81
Client education	20	53
Provincial network	33	42
Other	27	6
	$141	$287

4. PENSION AND VESTED SICK LEAVE

(a) Pension

All employees of the Commission are required to contribute to the Manitoba Civil Service Superannuation Fund at prescribed rates for defined benefits. The Commission is required to reimburse the Superannuation Fund for fifty per cent of payments made to retired employees. The December 31, 1986 triennial actuarial report indicated a net surplus of $582 000, reflecting pension fund assets of $4 278 000 and an actuarial present value obligation of $3 696 000. This surplus is being amortized to operations on a straight-line basis plus interest over a three-year period ending December 31, 1989.

The actuarial present value of the pension obligation determined in accordance with the formula contained in the triennial actuarial report, including provision for increases in pensions due to increases in the cost of living, at December 31, 1987 is $4 881 000 (March 31, 1987: $4 454 000).

A portion of the term deposits with the Minister of Finance, Government of the Province of Manitoba has been designated by the Commission in an amount sufficient to fully fund the pension liability. Interest earned on these designated funds is included in interest income.

(b) Sick Leave Vesting

A portion of each employee's unused annual sick leave allowance is vested payable on termination of employment. The vested amount at December 31, 1987 is $565 000 (March 31, 1987: $486 000).

5. ADVANCE FROM THE GOVERNMENT OF THE PROVINCE OF MANITOBA

On May 6, 1987 the balance of the general debt of the Commission was retired by a principal payment of $1 662 000 plus accrued interest.

On July 15, 1987 an advance of $5 660 000 repayable $77 968 monthly, including interest at 11%, through September, 1997 was received to fund the acquisition of a Unisys Model A12 computer system dedicated to the health-care program.

6. FIXED ASSETS

	December 31 1987			March 31 1987
	Cost	Accumulated Depreciation and Amortization	Net	Net
Computer equipment				
— Owned	$12 087	$4 422	$7 665	$ 5 060
— Capital lease	1 705	764	941	7 130
Furniture and fixtures	890	442	448	440
Leasehold improvements	972	491	481	474
	$15 654	$6 119	$9 535	$13 104

Manitoba Data Services

7. PROPRIETARY SOFTWARE

Proprietary software is shown net of accumulated amortization of $1 641 000 (March 31, 1987: $1 299 000).

8. LEASES

(a) Future minimum payments under capital (computer equipment) and operating (office rental and computer equipment) leases, together with the present value of the net minimum payments under the capital leases, are as follows:

	Leases	
	Capital	Operating
1988	$ 647	$6 236
1989	428	4 427
1990	319	3 076
1991	159	—
1992	32	—
Total minimum lease payments	$1 585	$13 739
Less interest element (Weighted Average 11%)	144	
Present value of net minimum lease payments	1 441	
Less principal due within one year	386	
Capital equipment leases payable	$1 055	

(b) In January, 1986 the Commission entered into a sixty-month operating lease agreement for a 3090-200 processor. This lease is terminable by the Commission after thirty-six months upon payment of a termination fee ($438 000) equal to three months lease payments. Management anticipates that the processor shall be returned to the lessor at the end of the thirty-six month period; accordingly, the $438 000 termination fee is being charged to operations over a thirty-six month period.

(c) On July 1, 1987 the second 3090-200 processor, which had been acquired in March, 1986 under a capital lease, was upgraded to a model 400E. The capital lease was cancelled and replaced by a thirty-six month operating lease payable $319 400 per month from October, 1987 with an option to purchase in September, 1990 for $3.4 million.

Cancellation of the capital lease resulted in the recognition of a gain of $1.3 million which is included in the gain on disposal of fixed assets.

9. LONG-TERM ACCOUNTS RECEIVABLE

Term financing is extended to clients for the purchase of computer equipment and for systems development. Principal amounts receivable within one year of $47 000 (March 31, 1987: $26 000) are included in current accounts receivable.

10. HEALTH-CARE PROGRAM

Manitoba Data Services operates the Unisys-based health-care program under the terms of a facilities management agreement with the Manitoba Health Services Commission whereby MDS is guaranteed the full recovery of program costs.

11. CLIENT REFUND

The Commission declared a $3 million refund payable December 31, 1987 to public-sector clients based pro rata upon their contribution to data processing revenue during the 24-month period then ended.

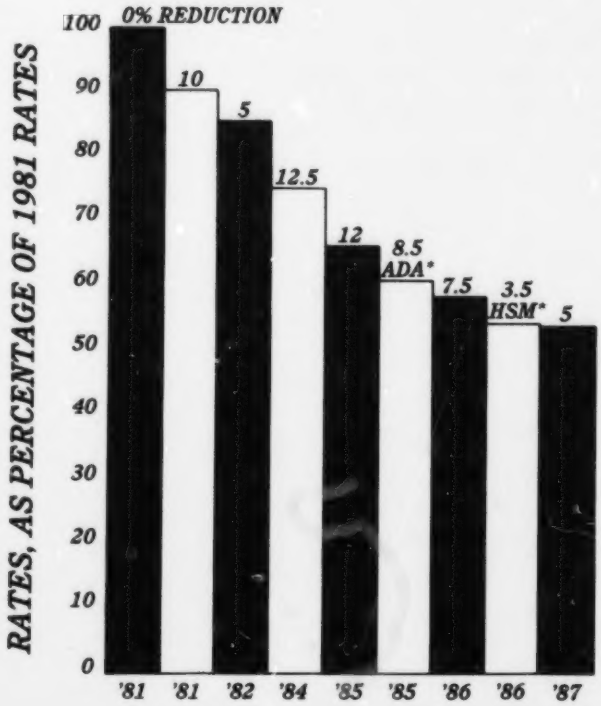
12. RELATED-PARTY TRANSACTIONS

Substantially all revenue earned by the Commission and related accounts receivable are from departments of the Government of the Province of Manitoba, its Crown corporations and agencies.

13. COMPARATIVE FIGURES

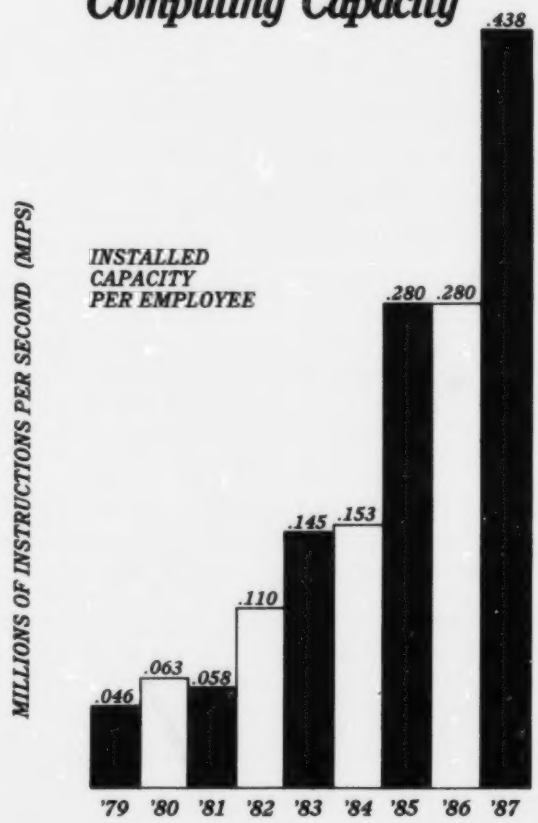
The fiscal year end of the Commission was changed during 1987 by Order in Council from March 31 to December 31. Accordingly, operating figures to December 31, 1987 represent a nine-month period. Comparative figures have been restated where appropriate to conform to the current year presentation.

Cumulative Effect of Rate Reductions

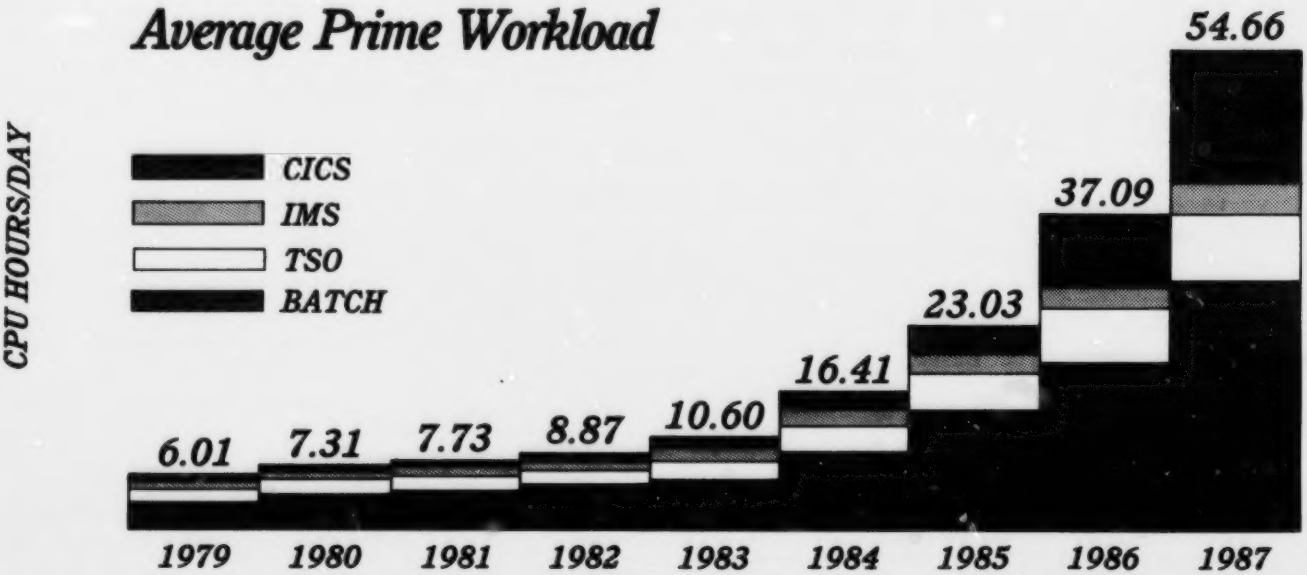


*Application Development Agreements (ADA) and Installation of Hierarchical Storage Manager (HSM) produced savings equivalent to percentage reductions shown.

Computing Capacity



Average Prime Workload



In Review

Early in the fiscal year, Manitoba Data Services (MDS) formed two groups within the Client Technical Support department to more effectively respond to changing client needs. Data Management Support staff help clients who have small data processing departments, or who are using database products for the first time, use an array of new, complex, but productive data management products. End User Systems Support staff provide help to the growing number of clients who are using computers for their everyday business and professional tasks.

In April 1987, MDS announced its expanded support of the Provincial Government Network offering. This communications network service provides efficient sharing of telecommunications equipment, facilities and related costs among provincial government departments. Through this service, clients can expand their access to existing applications, encourage development of new applications, and improve information sharing throughout their office. By sharing a common network clients can reduce costs, time delays, and administrative overhead by using existing communication links from various provincial locations.

Computer Operators Anita Greiss (left) and Mike Sorokowski load a new cassette tape. Over time MDS will replace all reel-mounted tape with the compact cassettes, which store more data and are easier to use.

On October 29, MDS and the Department of Finance, Information Systems Support Branch (ISSB) jointly hosted the first seminar of a series on "Productivity and Technology". Approximately 150 senior public sector managers and their data processing directors attended. The seminar featured Bruce J. Rogow, information technology consultant, who addressed the subject of "Senior Management and the Strategic Use of Information Technology." In a follow-up survey, clients indicated an interest in future seminars which are now being planned.

In June, MDS retired the Mass Storage Subsystem (MSS) which had been used as one method of storing data since 1979. Advances in the technology of direct access storage devices combined with their lower costs led to the ultimate replacement of MSS. Commemorative presentations of MSS cartridges were made to clients attending the "Productivity and Technology" seminar.

MDS made further advances in the area of data storage when it introduced a new cassette tape for storing daily and weekly backups of data. The IBM 3480 magnetic tape is contained in a plastic cassette about the size of a video cassette. Although only about one-quarter the size of the reel-mounted tape cartridges, the new tape can store approximately 25 per cent more data. The new cassette tapes are more economical to buy and use. As well, they take less space to store and are easier for operators to handle.

In November, MDS conducted the fourth disaster recovery test at its standby facility in Chicago. These tests are

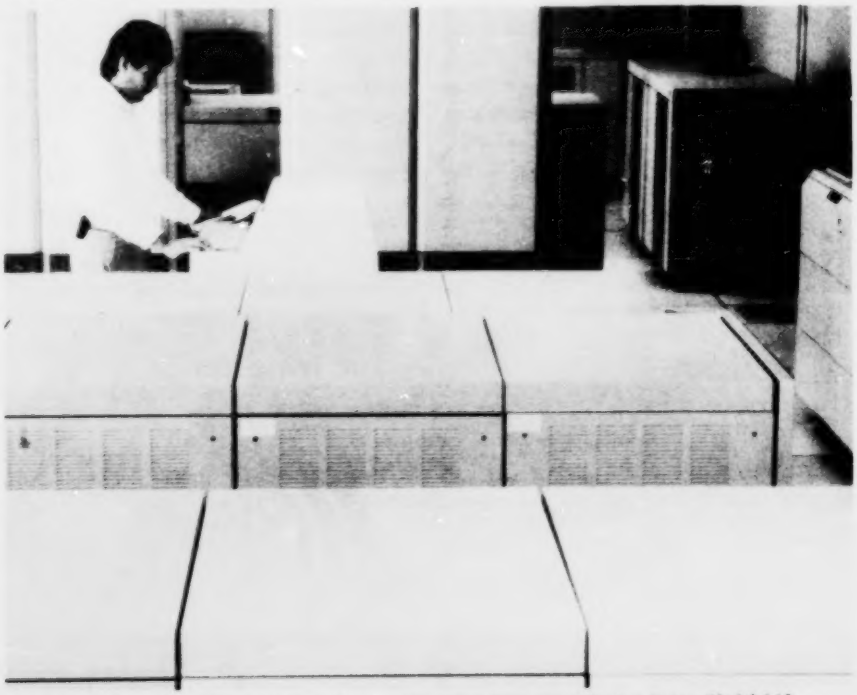
conducted to ensure our ability to maintain computer operations from the standby site if the central site in Winnipeg is disabled by a disaster. During the test, new hardware and software, an upgraded central processing unit and a new version of the MDS operating system, performed successfully. Two client applications were also processed without problem. Clients who take part in the disaster recovery program, which includes the annual test, can have their business applications backed up by the computerized Disaster Recovery Utility (DRUT). The utility automatically produces backup copies of data, which are stored offsite for use in a disaster recovery situation. The frequency with which backup copies are produced is determined by the client.

A new client service was initiated within the Computer Operations Department in 1987. The position of Network Installation Coordinator was established to provide advisory, consultative and problem-solving services to clients' network-related concerns. The objective is to minimize any negative impact on clients' service caused by changes to the existing network facilities or installation of new hardware at the client site. The coordinator advises clients on the optimal placement of hardware, such as terminals, controllers, modems, and microprocessors. Consultation helps clients derive cost savings, benefits and operational efficiencies as well as avoid future network problems.

In 1987, MDS continued its participation in the University of Manitoba's Computer Science Co-operative Option program. The program allows honors students in computer science to gain practical experience in four-month work terms which alternate with equivalent periods of classroom study. MDS helped establish the program in 1981 and maintains two full-time positions for these students. MDS takes pride in employing these students and supporting an educational program which promotes high-technology employment in Manitoba.

For the fourth consecutive year, MDS staff qualified for the United Way Leadership Award for their joint support of the annual appeal for funds. Employee participation reached 92 per cent. As is its custom, the commission matched contributions given by its employees.

Manitoba Data Services efforts are dedicated to providing the highest quality of service to its clients in the Manitoba public sector. The commission achieves this goal by offering clients the most cost-effective data processing and electronic office products and services.



Leo Ouimet, Supervisor, Computer Operations, reads output from one of the two Unisys Model A12 computers now operating at MDS.